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(54) METHOD TO WELD TWO SUBSTRATE PIECES TOGETHER USING A FOCUSED LASER BEAM

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Field of Classification Search

See application file for complete search history.

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(57)**ABSTRACT**

Two substrate pieces are welded together with a focused laser beam. One of the pieces is transparent in the wave length of the laser beam. The two pieces are pressed together so the tops of the roughness of the joining surfaces become level and both a uniform and pocket like air layer is removed from between the surfaces. The focal point of the laser beam is focused in the common boundary surface of the substrate pieces and the pieces are set to movement in relation to the laser beam so that the focal point advances in the boundary surface according to the shape and length of the weld. The energy of the focal point melts the material of the two pieces at the same time. When the melts mix and harden, a weld is formed that joins the pieces hermetically and goes round the third piece(s) isolating it hermetically.

8 Claims, 3 Drawing Sheets

